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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,526

07/24/2007

Jean-Luc Soulard

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EXAMINER

AMBAYE, MEWALE A

ART UNIT

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2416

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,526	Applicant(s) SOULARD ET AL.	
	Examiner MEWALE AMBAYE	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-8 are pending.

Oath/Declaration

2. The oath/Declaration filed on 07/24/2007 is accepted by the examiner.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

4. The information disclosure statement filed on 09/18/06 is in compliance with 37 CFR 1.97. Accordingly, the information discloser statement is being considered by the examiner.

Drawings

5. The drawings filed on 09/18/06 are accepted by the examiner.

Claim Objections

6. Claim 1 is objected to because of the following informalities: In claim 1 lines 13, the phrase "lavel's" should be changed to "labels". Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims **1, 5, 6 & 8** are rejected under 35 U.S.C. 102(b) as being anticipated by Cloutier et al (hereafter referred as Cloutier) US Patent No. 5,966,387.

9. **As per claim 1:** Cloutier discloses a Device for temporal slaving in a packet data transmission network, each data packet comprising a time label (*See Abstract & Col 4; lines 53-57, PCR values are time stamp (label) comprised in MPEG data packets*) the said device comprising means of temporary storage (*FIG. 2, Buffer 144 & Col 13; lines 7-11*) intended to receive the packets received from the said network and having a storage capacity able to record data received for a predetermined time dependent on the characteristics of the network (*See Col 13; lines 7-36, it eliminates jitter, the storing time in a storage means is dependent on the jitter which is depend on the characteristics of the network. Data is stored in a storage until the buffer fills up, which is for a predetermined time*), the said device furthermore comprising means for regenerating a local reception clock as a function of the time label of the incoming packets (*See FIG. 2, device 130 and 134 & Col 10; 53-61, detection processor output the cock 134 based on the PCR detector which is a time label*), means for reading the data in the means of temporary storage at an instant dependent on the said predetermined time and on the regenerated local reception clock (*Col 13; lines 26-57 & FIG. 2 (BA), Signal BA is adjusted as a function of the buffer size, i.e. the said predetermined time, and depends on the local clock*); wherein the means for regenerating a local reception clock comprise sub-means for accumulating said difference between the time levels of the incoming packets and the local reception clock during a period of time (*See Col 2; lines 19-27, after calculating the difference between the time label and the internal clock to obtain an error signal which is sent to the internal signal to regenerate the internal clock based on the difference*) and a sub-means for modifying in a non-linear manner the

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local reception clock according to said difference (*See Col 12; 27-34 & FIG 4, Yn buffer represents the actual arrival time which is the reception clock. Xn buffer represents the expected time. Both of these signals are feed to the least square error calculator which makes the modification in a non linear manner*).

10. **As per claim 5:** Cloutier discloses a device wherein it comprises means of reducing the phase noise (*See Abstract, the device discloses how to correct jitter which is reducing the phase noise*).

11. **As per claim 6:** Cloutier discloses a device wherein the means of reducing the phase noise comprise a digital low-pass filter (*See Col 3, lines 13-23, to reduce the phase noise (jitter), the signal passes through a low pass filter*).

12. **As per claim 8:** Cloutier discloses a method of temporal slaving in a packet data transmission network, each data packet comprising a time label (*See Abstract & Col 4; lines 53-57, PCR values are time stamp (label) comprised in MPEG data packets*) the said device comprising a step of temporary storage (*FIG. 2, Buffer 144 & Col 13; lines 7-11*) intended to receive the packets received from the said network and having a storage capacity able to record data received for a predetermined time dependent on the characteristics of the network (*See Col 13; lines 7-36, it eliminates jitter, the storing time in a storage means is dependent on the jitter which is depend on the characteristics of the network. Data is stored in a storage until the buffer fills up, which is for a predetermined time*), the said device furthermore comprising step for regenerating a local reception clock as a function of the time label of the incoming packets (*See FIG. 2, device 130 and 134 & Col 10; 53-61, detection processor output the cock 134 based on the PCR detector which is a time label*), a step for reading the data in the means of temporary

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storage at an instant dependent on the said predetermined time and on the regenerated local reception clock (*Col 13; lines 26-57 & FIG. 2 (BA), Signal BA is adjusted as a function of the buffer size, i.e. the said predetermined time, and depends on the local clock*).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims **2 & 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cloutier, in view of Akiyama et al (hereinafter referred as Akiyama) US Publication No. 2005/0152213 A1.

15. **As per claim 2:** Cloutier discloses all the limitation of independent claim 1 except characterized in wherein the means of reading the data in the means of temporary storage are adapted for reading the data in the means of temporary storage when the difference between the said predetermined time and the regenerated local clock is greater than the value of the time label of the next packet to be output from the means of temporary storage.

However, Akiyama teaches a device characterized in wherein the means of reading the data in the means of temporary storage are adapted for reading the data in the means of temporary storage when the difference between the said predetermined time and the regenerated local clock is greater than the value of the time label of the next packet to be output from the means of temporary storage (*See page 1 through 2; Para. 0018 & FIG. 2*).

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Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to employ the teaching method of Cloutier within Akiyama method in order to provide a time management apparatus for reducing the opportunity for a third party to tamper with time (*See Abstract*).

16. **As per claim 4:** the combination of Cloutier and Akiyama disclose a device wherein it comprises means of reducing the convergence time on start-up, said means comprising sub-means for accumulating the said differences for a predetermined number of received packets and calculate a mean of said differences over said predetermined number of packets, said mean of said differences being subtracted from said differences (*See FIG. 4, steps 406-418*).

17. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cloutier, in view of Skelly et al (hereinafter referred as Skelly) US Patent No. 6,661,810 B1.

18. **As per claim 7:** Cloutier discloses all the limitation of independent claim 1 except wherein it comprises means for generating artificial noise.

However, Skelly discloses a device wherein it comprises means for generating artificial noise (*See Col 11; 29-47, when reducing the phase noise, the artificial noise (background noise should be taken in consideration when generating the clock time)*).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to employ the teaching method of Cloutier within Skelly method in order to avoid variation in the delay estimation based on the packet size (*Col 11; 29-47*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mewale Ambaye whose telephone number is (571) 270-7634. The examiner can normally be reached on M - F, 8:00 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reach on (571) 272-7872. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from their Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)?

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (In USA or Canada) or 571-272-1000.

/M. A. /

Examiner, Art Unit 2416

/William Trost/

Supervisory Patent Examiner, Art Unit 2416

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